
 SURESH GYAN VIHAR UNIVERSITY <small>Accredited by NAAC with 'A' Grade</small>		INTERNAL ASSIGNMENT - 1
Course	MCA	Time Series Analysis and Forecasting Techniques
Semester	3	
Total Marks:	15	

Q 1. Write answers for any two questions from below. (5 marks each – Word limit – 500)

- A. Explain how will you estimate seasonality in a given time series. How will you test for seasonality?
- B. Give an example of a non-Gaussian (not white noise) time series and describe its characteristics.
- C. Explain how large forecast errors can lead to high inventory levels at a retailer; at a manufacturing plant.

Q 2. Write short notes on all of the following topics (1 mark each - Word limit - 100)

- A. Highlight the conditions essential for stationarity.
- B. Describe the problem in removing cyclic components by annual changes.
- C. How would you select the order for an m variate autoregressive model?
- D. Explain along with formulations, the second order properties of multivariate models.
- E. Verify the calculation of a zero order step function.

 SURESH GYAN VIHAR UNIVERSITY Accredited by NAAC with 'A' Grade		INTERNAL ASSIGNMENT - 2
Course	MCA	Time Series Analysis and Forecasting Techniques
Semester	3	
Total Marks:	15	

Q 1. Write answers for any two questions from below. (5 marks each – Word limit – 500)

- A. Describe the problem in removing cyclic components by annual changes.
- B. Explain the important components of a time series with relevant instances.
- C. What techniques can be adopted to solve the problem of autocorrelation?

Q 2. Write short notes on all of the following topics (1 mark each - Word limit - 100)

- A. Explain the ARAR algorithm and all the steps involved.
- B. What is intervention analysis?
- C. Explain the Box Jenkins modelling process
- D. Show that the auto covariance function of a stationary time series is an even function.
- E. What techniques can be adopted to solve the problem of autocorrelation?